

\mathbf{A}	Final Report
	Revised Report

Report Date: 04-Aug-17 12:41

Laboratory Report SC37607

Gulf Oil L.P. 281 Eastern Avenue Chelsea, MA 02150 Attn: Andrew P. Adams

Project: Gulf Terminal - Chelsea, MA

Project #: Gulf Chelsea

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87936 Maine # MA138 New Hampshire # 2972/2538 New Jersey # MA011 New York # 11393 Pennsylvania # 68-04426/68-02924 Rhode Island # LAO00348 USDA # P330-15-00375 Vermont # VT-11393



Authorized by:

Kimberly Laplante Quality Assurance Manager

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Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 8 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC37607

Project: Gulf Terminal - Chelsea, MA

Project Number: Gulf Chelsea

Laboratory IDClient Sample IDMatrixDate SampledDate ReceivedSC37607-01Outfall 003Surface Water27-Jul-17 08:0031-Jul-17 16:17

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CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 3.7 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of ± 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

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Sample Acceptance Check Form

Client:

Gulf Oil L.P.

Project:	Gulf Terminal - Chelsea, MA / Gulf Chelsea			
Work Order:	SC37607			
Sample(s) received on:	7/31/2017			
The following outlines th	ne condition of samples for the attached Chain of Custody upon receipt.			
		<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody se	als present?		\checkmark	
Were custody se			✓	
Were samples re	ceived at a temperature of $\leq 6^{\circ}$ C?	~		
Were samples re	frigerated upon transfer to laboratory representative?	\checkmark		
Were sample con	ntainers received intact?	\checkmark		
	operly labeled (labels affixed to sample containers and include sample ID, site project number and the collection date)?	~		
Were samples ac	companied by a Chain of Custody document?	\checkmark		
include sample I	ustody document include proper, full, and complete documentation, which shall D, site location, and/or project number, date and time of collection, collector's name, e, sample matrix and any special remarks concerning the sample?		<u> </u>	
Did sample cont	ainer labels agree with Chain of Custody document?	\checkmark		
Were samples re	ceived within method-specific holding times?	\checkmark		

Summary of Hits

Lab ID: SC37607-01

Client ID: Outfall 003

Parameter	Result Flag		Reporting Limit	Units	Analytical Method			
Total Suspended Solids	3.3		0.5	mg/l	SM2540D (11)			

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification Outfall 003 SC37607-01		Project # Chelsea		<u>Matrix</u> Surface W		ection Date 7-Jul-17 08		<u>Re</u> 31-				
CAS No. Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters Total Suspended Solids	3.3		mg/l	0.5	0.2	1	SM2540D (11)	01-Aug-17	03-Aug-17	СМВ	1713224	Х

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General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SM2540D (11)										
Batch 1713224 - General Preparation										
Blank (1713224-BLK1)					Pre	epared: 01-Au	ug-17 An	alyzed: 03-A	ug-17	
Total Suspended Solids	< 0.5		mg/l	0.5						
LCS (1713224-BS1)					Pre	epared: 01-Au	ug-17 An	alyzed: 03-A	ug-17	
Total Suspended Solids	104		mg/l	10.0	100		104	90-110		

Notes and Definitions

dry Sample results reported on a dry weight basis

NR Not Reported

RPD Relative Percent Difference

<u>Laboratory Control Sample (LCS)</u>: A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

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		586	アメアく	Relinquished by:	773 S							5037607 01 Outfall 003	Lab ID: Sample ID:	G= Grab	XI= X2=	O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air	DW=Dinking Water GW=Groundwater SW=Surface Water		F=Field Filtered I=Na ₂ S2O ₃ 2=HCI 3=H ₂ SO ₄ 7=CH3OH 8=NaHSO ₄ 9=Deionized Water 10=H ₃ PO ₄		Telephone #: 617.884.5980	Chelsea, MA 02150	281 Eastern Ave	Gulf Oil LP	Report To: Andrew Adams	SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY		2
		JULY	500	Received by:				÷			' '	7/22/17 0800	Date: Time:	C=Compsite	X3=	nt Air SG=Soil Gas	ice Water		4=HNO ₃ 5=NaOH 6=	P.O No.:					Invoice To		CHAI	
	200	7/3///	7-31-17	Date:		,						G SW	Ma # of	VOA	Vials r Glas	S	· ·		6=Ascorbic Acid			Wellesley, MA 02481-3705	80 William St, Suite 400	Gulf Oil LP	Invoice To: Christopher Gill	Page1 of	CHAIN OF CUSTODY RECC	
) 	Contraction	160	1222 g-	Time: To	Į.			ì				×	i.A.	Clear	Glass		Containers	11		Quote/RQN:							ODY REC	
Ambient 🗆 ked	Condition upon receipt	tion Factor	E-mail to:	Temp °C							12						Analysis		List Preservative Code below:		Sampler(s):	Location:	Site Name:		Project No		ORD	
Refrigerated	Custody Seals		aadams@gulfoil.com, cgill@gulfoil.com									0		ek if c	chlorii	nated			de below:			281 Eastern Ave, Chelsea	. Gult Ci		G	All TATs subject to laboratory approval Min. 24-hr norification needed for rushes Samples disposed after 60 days unless oth	☐ Rush TAT - Date Needed:	Special
☐ DI VOA Frozen ☐ Soil Jar Froze	Present		gulfoil.com	a					9				Other State-specific reporting standards	☐ Tier II* ☐ Tier IV*	J \Box	CTIDPH RCP Report? La ves La la California La No QC	MA DEP MCP CAM Report? Tyes Time	* additional charges may appply	QA/QC Reporting Notes:			Chelsea State: MA	Gult Chelsea Lerminal		Gulf Chelsea	All TATs subject to laboratory approval Min. 24-hr notification needed for rushes Samples disposed after 60 days unless otherwise instructed.	o 10 business days leeded:	Special Handling:

Batch Summary

1713224

<u>General Chemistry Parameters</u> 1713224-BLK1 1713224-BS1 SC37607-01 (Outfall 003)